Reference	Type of study	Purpose	Methods	Conclusions
1	Research	The paper examines legal aspects, examining regulations like the National Medical Commission Act and Telemedicine Practice Guidelines, and scrutinizes government policies regulating health data.	in-depth analysis of existing regulatory frameworks, case studies of data breaches, and an exploration of international best practices.	Challenges in the widespread adoption of AI include ethical concerns, legal uncertainties, infrastructure limitations, and information asymmetries.
2	Viewpoint	The objectives of this study were to analyze the current state of generative AI in health care, identify opportunities and privacy and security challenges posed by integrating these technologies into existing health care infrastructure, and propose strategies for mitigating security and privacy risks	Examining the use cases and benefits of generative AI across diverse domains within health care	Collaborative efforts between AI developers, health care providers, policy makers, and domain experts will be critical to unlocking the benefits of generative AI while also prioritizing ethics, accountability, and safety.
3	Debate	Privacy issues relating to implementation and data security.	Here, I outline and consider privacy concerns with commercial healthcare AI, focusing on both implementation and ongoing data security.	We are currently in a familiar situation in which regulation and oversight risk falling behind the technologies they govern. Regulation should emphasize patient agency and consent, and should encourage increasingly sophisticated methods of data anonymization and protection.
4	Review	The current paper examined various research studies to explore the utilization of intelligent techniques in health systems and mainly focused into the security and privacy issues in the current technologies.	In this paper, we focused on a thorough review of current and existing literature on different approaches and mechanisms used in e-Health to deal with security and privacy issues	The future of cloud-based eHealth services will be the integration of file-based and cloud-based applications that integrate a computer-based hybrid IT solution that measures the flexibility and scalability associated with cloud management and healthcare data security.
5	Review	In this paper, I will explore the confusions around consent in terms of common social scientific models.	Using three typical scenarios—contact tracing, big data analytics and research during public emergencies—this paper explores a trust-based alternative to consent.	Moving forward, there needs to be discussion with relevant stakeholders, especially potential research participants and researchers themselves, to understand their expectations and thereby validate the arguments presented here exploring how a trust-based consent process might meet their requirements.
6	Research	The purpose of this scenario is to highlight the ethical and legal implications of	The scenario presents a hypothetical situation wherein a patient is	The scenario underscores the importance of transparency and patient autonomy in

		utilizing Artificial Intelligence (AI)/Machine Learning (ML) systems in medical decision-making without explicit patient consent. It aims to provoke consideration of whether informed consent has been adequately obtained both from a legal and ethical perspective in the context of AI-driven treatment recommendations. Additionally, it seeks to raise awareness about the increasing integration of AI/ML systems in medical practice and the potential implications for patient autonomy and transparency in healthcare decision-making.	recommended a surgical treatment for prostate cancer based on an AI/ML system's analysis of their electronic health record. It prompts questions about whether informed consent has been obtained from the patient, both legally and ethically. The scenario encourages critical reflection on the role of AI/ML systems in medical decision-making and the responsibilities of healthcare providers to inform patients about the use of such technologies in their care.	medical decision-making, particularly when AI/ML systems are involved. It raises ethical concerns about the potential violation of patients' rights to informed consent if healthcare providers fail to disclose the use of AI/ML systems in treatment recommendations. Furthermore, it highlights the need for clear guidelines and policies regarding the integration of AI/ML technologies in healthcare to ensure patient trust, autonomy, and well-being. Overall, the scenario prompts reflection on the implications of AI-driven medical decision-making for patient-provider relationships and healthcare ethics in the era of advancing technology.
7	Research	The purpose of this work is to develop a checklist of items to be disclosed when diagnosing DR with AI systems in a primary care setting.	Two systematic literature searches were conducted in PubMed and Web of Science databases: a narrow search focusing on DR and a broad search on general issues of AI-based diagnosis. An ethics content analysis was conducted inductively to extract two features of included publications: (1) novel information content for AI-aided diagnosis and (2) the ethical justification for its disclosure.	Implications for the general practitioner are two-fold: First, doctors need to be better informed about the ethical implications of novel technologies and must understand them to properly inform patients. Second, patient's overconfidence or fears can be countered by communicating the risks, limitations, and potential benefits of diagnostic AI systems. If patients accept and are aware of the limitations of AI-aided diagnosis, they increase their chances of being diagnosed and treated in time.
8	Review	This review will focus on ethical issues of AI and how physicians should approach the ethics of using AI in clinical practive.	Several key terms were searched on PubMed such as "Artificial Intelligence", "COVID-19", "Ethics" and "Radiology". Ultimately, 32 articles that were published from June 2016 - November 2020 were included in our review given their presentation of original information and relevance to clinical AI imaging and ethics	For healthcare workers to provide high quality standard of care, they must fully understand possible negative implications in event of premature AI implementation in the medical practice.
9	Research	The purpose of this text is to highlight the transformative potential of artificial intelligence (AI) in global healthcare delivery. It discusses how AI can enhance accuracy in diagnoses and treatments, improve efficiency in service provision, and increase access to healthcare,	The text presents a narrative discussion of the potential benefits of AI in healthcare, particularly in surgery and in addressing healthcare access issues in LMICs. It outlines the ethical and practical challenges associated with AI implementation and emphasizes the need	The text concludes that while AI holds great promise in improving healthcare delivery globally, its success depends on effectively addressing ethical and practical challenges. It argues that resolving these issues requires the development and implementation of comprehensive rules and

		especially in lower-and-middle-income countries (LMICs). Additionally, it emphasizes the importance of addressing ethical and practical challenges, such as explainability and algorithmic bias, to ensure the successful implementation of AI in healthcare.	for rules and regulations to govern AI's operation and engagement on national and international levels.	regulations at both national and international levels to define parameters and boundaries for AI's operation. It suggests that leaving ethical considerations solely to AI developers or tech companies would be inadequate, emphasizing the importance of ensuring fairness, justice, and health equality in the development and deployment of AI in healthcare.
10	Research	First, there is bias which occurs due to the characteristics of the population from which data was collected. Second, the bias which occurs due to the prejudice of the expert annotator involved. And third, the bias by the timing of when AI processes start training themselves.	We discuss environmental and regulatory hurdles which hinder the sharing of data in medicine–and discuss possible updates to current regulations that may enable ethical data sharing for machine learning.	With these updates in mind, we also discuss emerging algorithmic frameworks being used to create medical machine learning systems, which can eventually learn to be free from population-and-expert-induced bias. These models can then truly be deployed to clinics worldwide, making medicine both cheaper and more accessible for the world at large.
11	Research	The purpose of this research paper is to investigate the ethical considerations at the intersection of artificial intelligence (AI) and data science, with a specific focus on bias, fairness, and accountability. It aims to provide a comprehensive overview of the historical evolution of AI and data science, highlighting the growing importance of ethical considerations in contemporary technology development.	The paper employs a structured approach to explore various aspects of ethical considerations in AI and data science. It begins with a historical overview to provide context, followed by in-depth examinations of bias, fairness, and accountability. These topics are explored through discussions of definitions, typologies, impact, principles, challenges, assessment metrics, and legal and ethical implications. Practical strategies for addressing ethical concerns are presented, drawing on frameworks, guidelines, and case studies to illustrate successful ethical integration.	The research paper concludes by contributing to the discourse on responsible technology development. It emphasizes the importance of navigating AI and data science with awareness of ethical implications, particularly regarding bias, fairness, and accountability. By providing a comprehensive overview of these ethical considerations and practical strategies for addressing them, the paper aims to guide stakeholders in the development and deployment of technology in an ethical and responsible manner.
12	Review	This study aims to identify, compare, and synthesize existing solutions that address the components of FATE in AI applications in health care on SMPs.	Our research methodology involved a comprehensive literature search across PubMed, Web of Science, and Google Scholar.	Our review highlights the lack of a unified, comprehensive solution for fully and effectively integrating FATE principles in this domain. This gap necessitates careful consideration of the ethical trade-offs involved in deploying existing methods and underscores the need for ongoing research.
13	Research	The purpose of this study is to propose robust ethical frameworks for the deployment and oversight of deep learning	The study develops three distinct yet interconnected ethical frameworks focusing on patient privacy, transparency,	The study concludes that ethical frameworks are essential for guiding the deployment and oversight of deep learning

		systems in healthcare. These frameworks are based on foundational principles of medical ethics and aim to address potential challenges and pitfalls associated with the rapid advancement and deployment of deep learning-enabled medical systems.	and bias mitigation. These frameworks are constructed based on foundational principles of medical ethics, including non-maleficence, beneficence, respect for patient autonomy, and justice. The development process involves articulating principles within each framework and providing rationale and recommendations for their implementation.	systems in healthcare. The patient privacy framework emphasizes the importance of informed consent, transparency, and continual consent, advocating for patient autonomy and accountability. The transparency framework underscores the need for full disclosure and openness, promoting accountability, data transparency, and continuous improvement. The bias minimization framework highlights the imperative of awareness and representation, aiming to address potential biases and ensure fairness in system performance. Overall, the study emphasizes the importance of incorporating ethical considerations into the development and deployment of deep learning systems in healthcare to promote patient welfare and trust in these technologies.
14	Review	In this paper, we suggest an interdisciplinary vision on how to tackle the issue of AI's transparency in healthcare, and we propose a single point of reference for both legal scholars and data scientists on transparency and related concepts.	This analysis is reinforced by another contribution of the paper – interdisciplinary research on AI's transparency and related concepts.	It also enabled us to discover the existing gaps in the system and develop suggestions to fill them in. By taking into consideration the risk-management system that exists in healthcare, we suggest that some level of algorithmic opacity can be deemed as an acceptable risk subject to its balancing with other transparency measures and the benefits of AI's use.
15	Research	The purpose of the text is to highlight the challenges and opportunities in the use of machine learning and artificial intelligence (AI) in healthcare, particularly the lack of transparency, reproducibility, ethical considerations, and clear demonstrations of effectiveness in the current research landscape.	The method proposed to address these challenges involves an interdisciplinary approach that encourages teams to engage with a framework of 20 critical questions. This framework focuses on four main areas: transparency, reproducibility, ethics, and effectiveness (TREE), aimed at guiding research design, conduct, and reporting.	The conclusion is that implementing the proposed framework can enhance the quality and impact of research involving machine learning and AI in healthcare. By addressing the critical questions, research groups, editors, peer reviewers, and stakeholders like patients, clinicians, and policymakers can better evaluate and benefit from new developments in the field.
16	Policy & practice	The purpose of the text is to address and analyze the challenges of moral accountability and safety assurance in the use of artificial intelligence (AI) for clinical decision-making. It focuses particularly on the difficulties posed by AI	The method involves a detailed analysis of the issues of accountability and safety assurance in AI-based clinical tools, illustrated with the example of an AI system used in the treatment of sepsis. The text suggests moving towards including AI	The conclusion argues for a revision of current approaches to moral accountability and safety assurance in the context of AI in healthcare. It suggests that traditional models do not adequately address the complexities introduced by AI systems and

		systems in assigning blame for patient harm and ensuring patient safety.	developers and systems safety engineers in accountability assessments and adopting a dynamic model of assurance that evolves with the deployment and operation of AI systems.	proposes updates to these models to better manage potential patient harm and ensure safety, acknowledging that safety considerations continue to evolve post-deployment of AI systems.
17	Research	The purpose of this text is to address the lack of research on the ethical implications and principles for the design of health recommender systems (HRSs) in mobile health, particularly concerning the principle of autonomy. The paper aims to redefine the AI ethics principle of autonomy to ensure that HRSs respect and promote individuals' autonomy over aging effectively.	The method used involves a critical analysis of the current understanding and application of the principle of autonomy in the context of HRSs. The author clarifies the state-of-the-art in HRSs, identifies the need to focus on autonomy as a key ethical principle, and uses ethical reasoning to present a more nuanced concept of autonomy. This concept includes aspects of socio-relational dimensions, authenticity, and social recognition conditions beyond mere informational self-determination.	The conclusion drawn from the analysis is that the traditional concept of autonomy used in discussions about HRS-based mobile health is inadequate. The paper argues for a more complex understanding of autonomy that includes socio-relational dimensions and the necessity of authenticity and social recognition conditions. Based on this redefined concept of autonomy, the text suggests practical implications for designing HRSs that truly enable autonomy, supporting healthy active aging.
18	Research	The purpose of the text is to examine the practical limitations and theological implications of applying artificial intelligence (AI) in medicine, particularly how AI impacts the patient-provider relationship and aligns with Christian ethical concepts such as autonomy and hope. The essay aims to contribute to the development of a robust ethical framework for the use of AI in healthcare.	The methods used include the analysis of the impact of complex algorithms on healthcare decision-making, the management of resources, and end-of-life issues. The essay evaluates how these technologies align or conflict with Christian theological principles, specifically relating to Christ's healing mission. This involves discussing the moral and ethical considerations raised by AI applications in medicine and their effects on the traditional dynamics between patients and healthcare providers.	The conclusion suggests that while AI in medicine offers significant opportunities for improving prognostic confidence and democratizing healthcare, it also poses serious ethical challenges. These include potentially undermining the autonomy and hope central to Christian ethics and altering the foundational relationship between patients and providers. The text calls for the development of an ethical framework that better integrates these theological considerations into the deployment of AI technologies in healthcare settings, ensuring that such advancements align with broader humanistic and spiritual values.
19	Research	The purpose of this text is to discuss the need for improved mechanisms for human intervention, control, and oversight in AI systems, particularly within the context of ubiquitous computing. It emphasizes the importance of empowering users in AI-mediated communications by introducing the concept of active human agency, aiming to strengthen user autonomy and rights in the digital age.	The method involves applying Nicholas Garnham's conceptual perspective on mediation to analyze user interactions with AI systems. The article suggests mechanisms for contesting and rectifying decisions made by AI systems as essential means to enhance user agency. The authors link these mechanisms to concrete examples, explaining their necessity and potential impact on active human agency.	The conclusion calls for the introduction of specific user rights to contest and rectify AI-driven decisions, underlining the importance of these rights for empowering individual autonomy and strengthening fundamental rights. The authors propose future theoretical and empirical research routes to further explore and develop the concept of active human agency in the era of pervasive AI, suggesting that such

				research is critical for adapting policy and practice in response to evolving AI technologies.
20	Research	The purpose of the research is to address the safety challenges posed by AI-based systems in healthcare. Specifically, it aims to develop a Safety Controlling System (SCS) framework that reduces the risk of healthcare-related incidents caused by unsafe and incorrect actions of AI algorithms.	The method employed involves using the multi-attribute value model approach (MAVT) to develop the SCS framework. This approach consists of four symmetrical parts: extracting attributes relevant to AI safety, generating weights for these attributes, developing a rating scale for evaluating the attributes, and finalizing the system. This systematic approach aims to create a comprehensive safety framework applicable in healthcare settings with implemented AI models.	The conclusion of the study emphasizes that the developed SCS framework can serve as an effective checklist to ensure the safe application of AI models in healthcare. It provides a structured means to implement and monitor safety legislation, identify risks, improve human-AI interactions, prevent incidents, and manage emergency plans for residual risks. This framework, therefore, offers significant potential for enhancing safety in healthcare environments that utilize AI technologies.
21	Review	The purpose of the article is to review the use of artificial intelligence (AI) in healthcare, focusing on its implications for safety and examining both the opportunities and challenges presented by AI in this field.	The article conducts a review of AI applications in various healthcare contexts, such as bioinformatics, genomics, and image analysis, considering the safety aspects involved.	The study concludes that to provide safer AI technology in healthcare, it is crucial to implement strategies like safe design, safety reserves, safe fail, and procedural safeguards. It also highlights the need for clear guidance and protocols that should be identified and shared with all stakeholders to facilitate the development and adoption of safer AI applications in healthcare. Additionally, it is important to recognize and address the cost, risk, and uncertainty associated with potential technical systems.
22	Review	The purpose of the text is to address the limited implementation of AI systems in frontline healthcare despite significant recognition and investment. It aims to contribute to overcoming this challenge by proposing a minimally viable framework for evaluating the safety, acceptability, and efficacy of AI systems for healthcare.	The authors conducted a systematic search across Scopus, PubMed, and Google Scholar to identify relevant literature published between January 1970 and November 2020 related to the evaluation of AI systems in healthcare. They synthesized key themes according to the stages of evaluation: pre-clinical, exploratory, definitive, and post-market surveillance phases.	The study proposes a framework to guide AI system developers, policymakers, and regulators through the evaluation process of AI systems designed for healthcare use. By addressing the lack of internationally accepted regulatory standards for assessing AI safety and impact, the framework aims to facilitate the real-world implementation of AI systems in frontline healthcare.
23	Research	The purpose of the text is to examine the current state of artificial intelligence (AI) implementation in the corporate sector and healthcare, highlighting the gap between expectations and actual integration. It aims to survey the path for companies to bridge	The paper conducts a survey of the current state of AI implementation in the corporate sector and healthcare. It analyzes statistics and executive opinions regarding the adoption of AI technologies. Additionally, it provides an overview of	The study concludes that despite significant media publicity and recognition of AI's potential, there remains a gap between expectations and actual integration of AI technologies in both the corporate sector and healthcare. It emphasizes the need for

		this gap and enhance their AI capabilities to maximize its value.	AI applications in healthcare, particularly in supporting health management and improving patient flow within hospitals.	companies to build their AI capabilities to fully leverage the value of this disruptive technology. In healthcare, AI is seen as a promising tool for supporting health management and driving essential changes in treatment. The paper suggests that AI systems have multiple uses in clinical laboratories, hospitals, and research institutions, particularly in analyzing large datasets to provide potentially life-saving insights. Additionally, it highlights AI applications for improving patient flow within hospitals, indicating the broad scope of AI's potential impact on healthcare delivery.
24	Research	The purpose of the research article is to address the ethical considerations surrounding the promotion of health equity through digital technology and artificial intelligence (AI). It aims to synthesize an ethical framework that can effectively analyze the issues arising from efforts to promote health equity using these technologies.	The research conducts an analysis of ethical principles related to the promotion of health equity. Based on this analysis, it synthesizes an ethical framework comprised of two main groups of principles: general principles and principles of management. The framework is developed to guide the analysis of ethical issues concerning health equity promotion through digital technology and AI. Additionally, multidisciplinary workshops involving experts in digital technology, AI, and health equity are conducted to solicit issues, which are then analyzed and categorized using the ethical framework.	The study concludes by presenting a synthesized ethical framework consisting of general principles and principles of management. The general principles, which include Human Dignity, Justice, Nonmaleficence, and Beneficence, are categorized into major and minor principles, covering key ethical considerations. For example, Human Dignity encompasses major principles such as Non-humanization, Privacy, and Autonomy, along with minor principles like Explicability and Transparency. The principles of management, aligned with the goals to serve different core principles, are developed to aid in the implementation of the general principles. The study illustrates the application of the ethical framework through the analysis and categorization of issues identified in multidisciplinary workshops, emphasizing its practical utility in addressing ethical challenges related to health equity promotion through digital technology and AI.
25	Research	The purpose of the paper is to address the ethical and regulatory challenges associated with the increasing use of Artificial Intelligence (AI) in healthcare	The paper conducts an evaluation of self-imposed AI ethical guidelines, examining their common principles, approaches, drawbacks, and limitations. It aims to	The study concludes that the rapid development and global coverage of AI have made ethical considerations and regulatory frameworks increasingly vital,

		and medical education. It aims to evaluate existing AI ethical guidelines to identify common principles, approaches, drawbacks, and limitations, with the ultimate goal of fostering further discussion and consensus on safe and desirable uses of AI in healthcare education.	integrate theoretical studies and policy studies on sustainability issues related to healthcare and technologies, particularly from an AI ethical perspective.	particularly in healthcare and medical education. It highlights the overlap of ethical and social issues raised by AI in healthcare with those related to personal data use, function automation, reliance on assistive medical technologies, and telehealth. Without well-grounded ethical guidelines or regulatory frameworks, legal and ethical problems at the implementational level can arise. The paper emphasizes the need for further discussion and consensus-building on the ethical principles and responsibilities of educational systems in healthcare using AI. By evaluating existing AI ethical guidelines, the study aims to identify common principles and approaches while addressing drawbacks and limitations, ultimately encouraging the integration of theoretical and policy studies on sustainability issues in the intersection of healthcare and technologies from an AI ethical perspective.
26	Perspective	The purpose of this perspective article is to address the ethical considerations associated with the increasing use of artificial intelligence (AI) in healthcare, particularly in medical training. It aims to provide an ethical framework for designing AI systems in medical training that aligns with ethical principles and promotes equitable healthcare outcomes for both medical practitioners trainees and patients.	The article draws on past research in the fields of electrocardiogram interpretation training and e-health wearable devices to develop a framework for responsibly designing AI systems in medical training. It proposes five pillars of responsible design: transparency, fairness and justice, safety and well-being, accountability, and collaboration.	The study concludes by presenting a comprehensive ethical framework for designing AI systems in medical training. The framework comprises five pillars: transparency, fairness and justice, safety and well-being, accountability, and collaboration. Each pillar addresses key ethical considerations in AI system design, such as maintaining explainability, addressing biases in healthcare data, prioritizing patient safety and well-being, establishing clear lines of responsibility and liability, and promoting interdisciplinary collaboration among stakeholders. The proposed framework serves as a practical guide for designing and deploying AI in medicine, particularly in medical training, in a responsible and ethical manner.
27	Research	The purpose of this comprehensive research article is to rigorously investigate	The article employs a rigorous research methodology to investigate the ethical	The study concludes by emphasizing the pressing need for globally standardized AI

		the ethical dimensions associated with the widespread deployment of deep learning methods, particularly in safety-critical contexts such as healthcare. It aims to explore various facets of AI advancement, including transparency, data management, human oversight, educational imperatives, and international collaboration. Additionally, the article proposes a conscientious AI framework centered on values of transparency, equity, answerability, and a human-centric orientation. Furthermore, it aims to discuss the limitations inherent in AI systems and advocate for globally standardized AI ethics principles and frameworks.	dimensions of AI technologies, particularly focusing on the healthcare domain. It delves deeply into various facets of AI advancement, examining transparency, data management practices, the role of human oversight, educational imperatives, and the importance of international collaboration. The proposed conscientious AI framework is meticulously crafted based on these investigations, emphasizing values such as transparency, equity, answerability, and a human-centric orientation. Additionally, the article thoroughly discusses the limitations inherent in AI systems, including potential biases and challenges in navigating complex contexts.	ethics principles and frameworks. It highlights the adaptability of the proposed ethical framework in addressing emergent challenges associated with the deployment of AI technologies. The article underscores the importance of transparency, equity, answerability, and a human-centric orientation in the development and deployment of AI systems, particularly in safety-critical contexts like healthcare. Additionally, it acknowledges the limitations inherent in AI systems and advocates for continuous research and development efforts to address these challenges.
28	Research	The purpose of this analysis is to explore the ethical considerations surrounding de-implementation in healthcare, emphasizing the need to eliminate harmful, evidence-lacking practices and redirect resources towards more beneficial services. The study aims to address the limited discussion on de-implementation ethics and broaden the focus beyond clinical ethics principles by analyzing de-implementation within the broader context of the healthcare system.	To understand the ethical considerations of de-implementation within the healthcare system, the study applies Krubiner and Hyder's bioethical framework for health systems activity. This framework allows for the examination of ethics principles relevant to de-implementation, specifically focusing on the reduction of low-value surgery. By adopting this approach, the study aims to provide insights into the systems-level factors impacting de-implementation.	The analysis concludes that while there is no single ideal ethical framework for approaching de-implementation, utilizing a health systems framework enables consideration of the broader systems-level factors influencing de-implementation efforts. By framing de-implementation as a health systems issue with systems-wide ethical implications, healthcare providers are empowered to explore new approaches to overcoming obstacles and reducing low-value care. This approach encourages a shift towards more ethical and efficient healthcare practices by prioritizing patient safety and well-being while optimizing resource allocation.
29	Research	The purpose of this study is to investigate the perspectives and attitudes of both citizens and experts regarding the ethics of Artificial Intelligence (AI) in population health, citizen engagement in AI governance, and the potential of a digital app to facilitate citizen engagement in this context.	To achieve the study's objectives, a panel of 21 citizens and experts was recruited. A web-based survey was conducted to explore their perspectives and attitudes on various aspects, including the ethical issues of AI in population health, the roles of citizens and other actors in AI governance, and ways to support citizen participation in AI governance through a digital app. The responses obtained from	The results of the study provide valuable insights for the development of a digital app aimed at raising awareness, surveying opinions, and supporting citizens' decision-making regarding the ethical, legal, and social issues surrounding AI in population health. These findings suggest potential avenues for leveraging digital technologies to foster citizen engagement in AI governance processes, ultimately

			the participants were analyzed both quantitatively and qualitatively to gain a comprehensive understanding of their viewpoints.	contributing to informed decision-making and promoting ethical considerations in the application of AI in healthcare.
30	Review	The purpose of this study is to examine the development processes and stakeholder engagement practices associated with ethical guidelines for artificial intelligence (AI). Given the proliferation of ethical guidelines in recent years, the study aims to analyze the methodology and stakeholder engagement approaches employed in the creation of these guidelines to understand their transparency and inclusivity.	Content analysis was conducted on a sample of 47 major documents pertaining to AI ethics. The accessible information regarding the methodology and stakeholder engagement practices used in the development of these documents was analyzed. The study investigated the extent to which stakeholder engagement was undertaken and the transparency of the methodology for developing normative insights.	The analysis reveals that only 38% of the surveyed documents report some form of stakeholder engagement, with a mere 9% involving citizens. Additionally, most documents do not provide details on their methodology for developing normative insights. The study suggests that documents involving stakeholder engagement tend to offer more comprehensive and applicable ethical guidance, with the private sector being the least likely to engage stakeholders. The findings highlight a significant lack of engagement with the general public in the development of AI ethical guidelines. The study argues that as AI ethics progresses towards more sustainable, inclusive, and practical guidance, it is essential to embed stakeholder engagement and citizen involvement into the framing of ethical and societal expectations towards AI technology.
31	Review	The purpose of this review is to comprehensively examine the ethical implications surrounding the integration of Artificial Intelligence (AI) into medical decision support systems within healthcare practices. It aims to provide insights into the challenges, existing frameworks, exemplary practices, and emerging trends in this rapidly evolving field, highlighting the patient-centric focus and the impact of AI on patient outcomes.	The review employs a structured approach to explore various ethical considerations surrounding AI-enhanced medical decision support systems. It begins by emphasizing the significance of ethical considerations in light of patient welfare and the delicate balance between technological advancements and patient outcomes. The review then delves into critical pillars such as trust and transparency, ethical challenges including privacy concerns and biases in AI algorithms, and strategies for addressing these challenges. It delineates the ethical responsibilities of healthcare professionals and AI developers and surveys existing ethical frameworks in healthcare AI while evaluating their	The review underscores the paramount importance of ethical considerations in the integration of AI into medical decision support systems. It provides a comprehensive overview of current challenges, existing frameworks, exemplary practices, and emerging trends in the field, emphasizing the ongoing need for vigilance and ethical governance to ensure the responsible and beneficial deployment of AI in healthcare. The review advocates for the integration of ethical considerations into the entire development life cycle of AI-enhanced medical decision support systems, emphasizing the centrality of patient welfare and the imperative of

			applicability and effectiveness. Additionally, it examines recent proposals for ethical guidelines and highlights case studies and exemplary practices from healthcare institutions to illustrate real-world applications and best practices. The review also explores the evolving landscape of ethical AI research and ongoing initiatives aimed at addressing ethical challenges in the future.	trust, transparency, and accountability in AI-driven healthcare practices.
32	Commentaries	The purpose of this commentary is to examine the emerging paradigms of research ethics review concerning the use of artificial intelligence and machine learning (AI/ML) methods in health-related contexts. It aims to explore the challenges faced by Research Ethics Boards in reviewing AI/ML research and highlights two crucial developments for the future of the field.	The commentary draws on expert scholarship by McCradden et al. (2022), who developed a framework for ethics in the clinical translation of AI/ML research. It steps back from ethics considerations in the clinical environment to analyze emerging paradigms of research ethics review in health-related contexts. The commentary discusses familiar issues such as de-identification of health data, secondary use of data, and data governance, as well as novel issues including data minimization, opacity of analytic methods, and the integration of social justice and health equity into technologically mediated decisions.	The commentary concludes by highlighting two challenges facing the future of AI/ML research ethics review in health-related contexts. Firstly, it underscores the need to modify research ethics review processes to address novel issues such as promoting data minimization, increasing transparency in analytic methods, and integrating social justice and health equity into decision-making processes. Secondly, it emphasizes the importance of considering and implementing suggestions offered by scholars to adapt research ethics review to the evolving landscape of AI/ML research in healthcare.
33	Debate	The purpose of this discussion is to address weaknesses in the ethical review of big data and artificial intelligence research by conventional ethics review committees. It focuses on the example of medical research databases to highlight ethical issues concerning de-identified data sharing, emphasizing the need for enhanced oversight in instances where ethics committees may lack expertise or exempt research from review. The aim is to propose an alternative approach to ethical review by suggesting that data access committees, which already oversee big data and AI projects, can undertake ethical review if appropriately equipped	The discussion draws attention to weaknesses in the current ethics review process conducted by traditional committees due to the novelty and complexity of big data and AI research. It uses the example of medical research databases to illustrate ethical issues around de-identified data sharing and argues for enhanced oversight. The proposed alternative approach suggests that data access committees, possessing technical expertise and governance knowledge relevant to big data and AI projects, can undertake ethical review.	The discussion concludes that data access committees can effectively conduct ethical review of medical research databases if they enhance their review function by incorporating both professional and lay ethical expertise. It suggests that this approach can address the weaknesses observed in traditional ethics review committees, offering a potential solution to the ethical challenges posed by big data and artificial intelligence research in healthcare contexts.

		with relevant technical and governance knowledge.		
34	Review	This survey study aims to provide a succinct and comprehensive overview of fairness and bias in artificial intelligence (AI), particularly focusing on its applications in healthcare, employment, criminal justice, credit scoring, and generative AI models. The purpose is to address concerns about unfair outcomes and perpetuation of inequalities by AI systems, especially regarding generative biases in synthetic media. The study intends to review the sources of bias, assess their impacts on society, and explore mitigation strategies to ensure fairness in AI systems.	The study conducts a systematic literature review spanning multiple academic disciplines to gather insights into AI bias. It examines sources of bias, including data, algorithm, and human decision biases, with a specific focus on the emergent issue of generative AI bias. The societal impact of biased AI systems is assessed, emphasizing their role in perpetuating inequalities and reinforcing harmful stereotypes. Various proposed mitigation strategies are explored, considering their ethical implications and advocating for interdisciplinary collaboration to ensure effectiveness.	The survey concludes that addressing bias in AI requires a holistic approach involving diverse and representative datasets, enhanced transparency and accountability in AI systems, and exploration of alternative AI paradigms prioritizing fairness and ethical considerations. It emphasizes the need for tailored strategies to mitigate bias in generative AI models, which pose unique challenges. Overall, the survey contributes to the ongoing discussion on developing fair and unbiased AI systems by providing insights into the sources, impacts, and mitigation strategies related to AI bias, with particular attention to the emerging field of generative AI.
35	Reviews	The purpose of this discussion is to emphasize the importance of addressing ethical considerations in the implementation of Artificial Intelligence (AI). It highlights bias mitigation, transparency, and accountability as crucial factors for responsible AI deployment. The aim is to ensure that AI systems do not perpetuate or amplify existing biases, are transparent in their decision-making processes, and hold individuals or organizations accountable for any unintended consequences.	The discussion employs a descriptive approach to outline the ethical considerations surrounding AI implementation. It emphasizes bias mitigation as essential to prevent discriminatory outcomes and reinforce societal inequalities. Transparency is highlighted as another key consideration to foster public trust in AI systems by providing clear explanations for their decisions. Accountability is also discussed as crucial for ensuring responsible AI implementation, with mechanisms proposed to hold individuals or organizations accountable for any harm caused by AI technologies.	In conclusion, the discussion underscores the significance of bias mitigation, transparency, and accountability in the responsible deployment of AI. It emphasizes the need to develop methods to identify and mitigate biases within AI systems, ensure transparency in decision-making processes, and establish mechanisms for holding individuals or organizations accountable for any unintended consequences. By addressing these ethical considerations, AI can be implemented more responsibly, contributing to positive societal impacts while minimizing potential harms.
36	Reviews	The purpose of this study is to address the transformative potential of leveraging artificial intelligence (AI) alongside electronic health records (EHRs) to enhance healthcare, while also acknowledging the critical need to address bias in AI models developed using EHR data. The aim is to review methods for handling various biases in these AI models	The study employs a systematic review methodology following the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines. It analyzes articles published between January 01, 2010, and December 17, 2023, sourced from databases including PubMed, Web of Science, and IEEE. The review identifies key biases in EHR-based	In conclusion, the study highlights evolving strategies for mitigating bias in AI models developed using EHR data, emphasizing the urgent need for standardized and detailed reporting of methodologies. Additionally, it underscores the importance of systematic real-world testing and evaluation to gauge the practical impact of these models. The study advocates for

		to mitigate the risk of exacerbating healthcare disparities.	AI models, outlines strategies for detecting and mitigating bias throughout model development, and analyzes metrics for bias assessment.	ethical AI practices that prioritize fairness and equity in healthcare, emphasizing the importance of addressing bias to ensure the integrity and effectiveness of AI-driven healthcare interventions.
37	Editorial	The purpose of this discussion is to highlight the increasing application of artificial intelligence (AI) systems in healthcare, particularly in surgery, and to address the ethical concerns surrounding bias in AI systems. The aim is to emphasize the importance of detecting and mitigating bias in surgical AI systems to ensure fairness and equity, especially for disadvantaged populations.	The discussion focuses on a recent study that developed a new strategy to mitigate bias in surgical AI systems. It likely employs a descriptive approach, outlining the potential of AI applications in surgery and the ethical implications of bias in healthcare AI. The methods used in the study are not explicitly mentioned but may involve the development and testing of algorithms or interventions aimed at reducing bias in surgical AI systems.	In conclusion, the discussion underscores the pivotal role of detecting and mitigating bias in surgical AI systems to create technology that is generalizable and fair. By addressing bias, AI systems can better serve diverse populations and minimize the perpetuation of existing inequities in healthcare. The study discussed offers a promising strategy for mitigating bias in surgical AI systems, contributing to the development of more equitable and effective healthcare technologies.
38	Review	The purpose of this paper is twofold: (i) to highlight key considerations for evaluating artificial intelligence (AI) enabled clinical decision support systems; and (ii) to address the challenges and practical implications of AI design, development, selection, use, and ongoing surveillance in healthcare settings.	The paper employs a narrative review approach, drawing insights from existing research and evaluation approaches. Expert perspectives are gathered from the International Medical Informatics Association (IMIA) Working Group on Technology Assessment and Quality Development in Health Informatics and the European Federation for Medical Informatics (EFMI) Working Group for Assessment of Health Information Systems. It likely involves analyzing historical perspectives, best practice evaluation frameworks, and methodologies, as well as exploring challenges and practical aspects of evaluating AI in healthcare.	In conclusion, the paper emphasizes the critical importance of rigorous initial and ongoing evaluation to ensure the safe and effective integration of AI in complex sociotechnical healthcare settings. It suggests that specific enhancements required for the new generation of AI-enabled clinical decision support systems will emerge through practical application. The conclusion underscores the need for continued commitment to evaluation processes to address evolving challenges and maximize the potential benefits of AI in healthcare.
39	Review	The purpose of this article is to conduct a mapping review of the literature concerning the ethics of artificial intelligence (AI) in healthcare. The aim is to summarize current debates and identify open questions for future research. Specifically, the research question focuses on categorizing the primary ethical risks presented by AI in healthcare and	The review utilized five literature databases to search for relevant articles. A series of screening stages were conducted, removing articles that focused on digital health in general. This process resulted in 156 papers included in the review. The authors categorized ethical issues into three main types: epistemic, normative, and traceability-related, and identified six	The review identifies three categories of ethical issues arising from AI in healthcare: epistemic, normative, and traceability-related. These issues manifest at various levels of abstraction, from individual to societal or sectoral. The article outlines considerations for policymakers and regulators, mapping them to existing literature and categorizing each issue type

		identifying considerations for policymakers, regulators, and developers to be 'ethically mindful.'	levels of abstraction where these issues arise: individual, interpersonal, group, institutional, and societal or sectoral.	and level of abstraction. The goal is to inform stakeholders about what they must consider to enable healthcare systems to benefit from ethical AI while minimizing potential harms. The authors argue that swift action is necessary to prevent a potential loss of public trust in the benefits of AI for healthcare, which could lead to a new 'AI winter.'
40	Viewpoint	The purpose of this study is to examine the clinical, legal, and ethical aspects of artificial intelligence-assisted conversational agents (CAs) in healthcare. The focus is on understanding how these agents, which engage users through dialogue using natural language processing and machine learning, are utilized in healthcare settings, particularly amidst the COVID-19 pandemic and in direct-to-consumer or clinical capacities.	The study likely involves a review of existing literature, regulations, and guidelines pertaining to the use of conversational agents in healthcare. It may also include case studies or interviews with stakeholders involved in the development, implementation, or regulation of these AI-assisted agents. Methods may involve analyzing legal frameworks, ethical guidelines, and clinical applications to understand the current landscape and potential challenges associated with conversational agents in healthcare.	The study likely concludes with insights into the clinical, legal, and ethical implications of AI-assisted conversational agents in healthcare. It may highlight the benefits and challenges of using these agents, such as improved accessibility and efficiency versus concerns about privacy, liability, and patient safety. The conclusions may also offer recommendations for healthcare providers, policymakers, and developers to navigate the complexities of integrating conversational agents into healthcare practices while ensuring patient welfare and compliance with legal and ethical standards.
41	Guidance	The purpose of this guidance document is to provide policies, principles, and practices for the ethical use of artificial intelligence (AI) in healthcare and to prevent its misuse that could undermine human rights and legal obligations. It aims to offer insights and recommendations based on the collective views of a WHO Expert Group on Ethics and Governance of AI for Health, comprised of experts from various fields including public health, medicine, law, human rights, technology, and ethics.	The document is based on the analysis and recommendations of the WHO Expert Group, which included 20 experts in the relevant fields. The group likely conducted a thorough examination of the opportunities and challenges presented by AI in healthcare and formulated policies, principles, and practices for ethical AI use. The guidance is structured into nine sections and an annex, covering topics such as the definition of AI for health, its applications, laws and policies related to its use, ethical principles, and challenges identified by the Expert Group.	The guidance document offers a comprehensive overview of AI for health, including its methods, applications, legal considerations, and ethical principles. It concludes with recommendations for the ethical development and use of AI in healthcare, emphasizing the importance of adhering to ethical principles to ensure that AI technologies contribute positively to healthcare while upholding human rights and legal obligations. The conclusions likely highlight the need for ongoing monitoring and adaptation of policies and practices to address emerging ethical challenges in AI for health.
42	Report	The purpose of this technical report is to outline the methods employed by a US-based Digital Health company, X2AI, to	The report likely details the systematic approach undertaken by X2AI to develop the ethical code for startup environments	The technical report concludes by presenting a template for an ethical code tailored specifically for emotional AI

		develop an ethical code specifically tailored for startup environments and organizations offering emotional artificial intelligence (AI) services, particularly in the realm of mental health support. Given the increasing demand for accessible and affordable healthcare solutions globally, the utilization of AI holds significant promise in enhancing emotional well-being. Therefore, the report aims to address the imperative need for AI service providers to establish clear and consistent ethical guidelines that prioritize user safety and privacy on a global scale. It seeks to offer a template for an ethical code that can be adopted by other entities providing emotional AI services and their affiliates, thereby fostering responsible and ethical AI implementation.	and organizations delivering emotional AI services. This likely involved a comprehensive review of existing ethical frameworks, consultation with stakeholders including clients, collaborators, and research partners, and an analysis of global considerations regarding user safety and privacy in the context of emotional AI services. The methods section may outline the iterative process involved in refining the ethical guidelines, ensuring alignment with industry standards and regulatory requirements.	services in startup environments and other organizations. It highlights the practical guidelines for integrating support from various stakeholders and emphasizes the importance of aligning with existing ethical systems to inform the development of AI ethics. By offering a structured framework for ethical AI implementation, the report aims to empower AI service providers to prioritize ethical considerations in their operations, thereby promoting user safety, privacy, and well-being in the delivery of emotional AI services.
43	Review	The purpose of this article is to provide a comprehensive review of the developments in artificial intelligence (AI) technologies and their current and potential applications in clinical psychological practice. It aims to explore various AI-assisted activities in clinical psychology, including clinical training, treatment, psychological assessment, and clinical decision-making. Additionally, the article introduces a concept for an integrated AI-based clinician system. Furthermore, it addresses the associated issues, such as job displacement among mental health professionals, and discusses the broader ramifications of AI technology advancement in clinical practice. Overall, the article seeks to elucidate the transformative potential of AI technologies in the mental health care field and underscores the role of psychologists and other mental health professionals in shaping the development, evaluation, and	The methods employed likely involve a comprehensive literature review of existing studies, research articles, and technological advancements in AI technologies pertinent to clinical psychological practice. The review process may include accessing databases such as PsycINFO and other relevant academic sources to gather information on AI-assisted activities in clinical psychology. Additionally, the authors may have conducted interviews or consultations with experts in the field to gather insights into the current landscape and future prospects of AI applications in clinical practice.	The article concludes by highlighting the significant implications of AI technology advancements for the mental health care field. It emphasizes that the integration of AI technologies has the potential to transform various aspects of clinical psychological practice, including training, treatment, assessment, and decision-making processes. However, the article also underscores the importance of addressing associated challenges, such as potential job displacement among mental health professionals, and ethical considerations in the development and utilization of AI technologies. Ultimately, the article advocates for the active involvement of psychologists and other mental health care professionals in guiding the ethical and responsible use of AI technologies to ensure positive outcomes for patients and the field as a whole.

		ethical utilization of AI technologies in clinical settings.		
44	Research	The purpose of this article is to identify and examine a tension arising from the increasing enthusiasm among mental health researchers for utilizing computational tools powered by advances in artificial intelligence and machine learning (AI/ML). Specifically, the article explores how the growing reliance on AI/ML approaches, coupled with the proliferation of sensors collecting multimodal data, may inadvertently distance participants from the research process. It highlights the potential conflict between the imperatives of the "participatory turn" in mental health research, which emphasizes participant engagement and involvement, and the data-centric nature of AI/ML methodologies. The article aims to elucidate why this tension is problematic and proposes potential strategies for addressing it.	The methods employed likely involve a critical analysis of existing literature, research studies, and developments in the field of mental health research, particularly focusing on the intersection of AI/ML technologies and participatory research methods. The authors may have conducted a systematic review of relevant articles and scholarly works to identify instances where AI/ML approaches may hinder participant engagement and contribute to the distancing of participants from the research process. Additionally, the article may draw on theoretical frameworks and empirical evidence to support its arguments and recommendations for addressing the identified tension.	The article concludes by underscoring the importance of reconciling the imperatives of participatory research with the utilization of AI/ML technologies in mental health research. It highlights the potential negative consequences of AI/ML approaches that prioritize data collection and analysis over participant engagement and empowerment. The article advocates for a more nuanced and ethically informed approach to the integration of AI/ML tools in mental health research, one that prioritizes participant involvement, transparency, and accountability. By acknowledging and addressing the tension between AI/ML methodologies and participatory research principles, the article aims to foster a more equitable and inclusive research environment that respects the agency and dignity of research participants.
45	Editorial	The purpose of this editorial is to explore the implications of artificial intelligence (AI) and data-driven health technology for mental health care, considering the perspectives of various stakeholders, including service users, patients, carers, and families. It aims to raise critical questions about the potential transformative impact of AI in mental health care and to examine the challenges and concerns associated with its implementation. Drawing parallels with previous discussions on biomarker research and e-mental health interventions, the editorial seeks to address ethical, practical, and user engagement issues related to AI in mental health.	The methods likely involve a review and synthesis of existing literature, including reports, editorials, and research studies, that discuss the use of AI and data-driven technologies in mental health care. The authors may have analyzed statements and announcements from prominent organizations, policymakers, and health authorities regarding the integration of AI into mental health services. Additionally, the editorial may draw on insights and perspectives shared by experts in the field of mental health, AI, and technology, as well as reflections from service users and patient advocacy groups.	The editorial concludes by highlighting the need for careful consideration of the implications of AI and data-driven health technology for mental health care. While AI holds promise for transforming service delivery and treatment development, the editorial underscores the importance of centering the perspectives and needs of service users, patients, and their families in the discourse surrounding AI in mental health. It emphasizes the ethical imperative of ensuring transparency, accountability, and user engagement in the development and deployment of AI-driven interventions. By revisiting previous discussions on related topics such as biomarker research and e-mental health interventions, the editorial provides a comprehensive examination of the challenges and

				opportunities associated with the use of AI in mental health care.
46	Research	The purpose of this research paper is to critically examine the ethical considerations associated with the adoption of artificial intelligence (AI) for mental health diagnosis. It aims to explore the ethical dimensions of utilizing AI algorithms in mental health assessment, particularly focusing on concerns related to privacy, bias, and the potential impact on the therapeutic relationship. By analyzing these ethical considerations, the paper seeks to highlight the need for transparent guidelines, informed consent procedures, and ongoing oversight to ensure the responsible integration of AI in mental health diagnosis.	The methods likely involve a review and analysis of existing literature, including academic papers, reports, and ethical guidelines, relevant to the intersection of AI and mental health diagnosis. The authors may have conducted a systematic examination of the ethical issues surrounding AI adoption in mental health, identifying key concerns such as privacy infringement, algorithmic bias, and implications for patient autonomy. Additionally, they may have synthesized insights from expert perspectives in the fields of mental health, AI ethics, and healthcare policy to inform their analysis.	The research paper concludes by emphasizing the importance of establishing ethical frameworks to guide the integration of AI into mental health diagnosis. It underscores the necessity of transparent guidelines and informed consent processes to address concerns related to privacy infringement and algorithmic bias. Furthermore, the paper highlights the role of healthcare professionals in navigating the ethical implications of AI adoption and maintaining the integrity of the therapeutic relationship with patients. By raising awareness of these ethical considerations and advocating for responsible AI use, the paper aims to contribute to the development of ethical standards that promote the ethical and equitable application of AI in mental health diagnosis.
47	Review	The purpose of this study is to survey empirical scholarly literature on the application of algorithmic and data-driven technologies in mental health initiatives with the aim of identifying the legal and ethical issues that have been raised.	The study conducted a comprehensive search for peer-reviewed empirical studies on the application of algorithmic technologies in mental health care across databases such as Scopus, Embase, and the Association for Computing Machinery. A total of 1078 relevant peer-reviewed applied studies were identified, which were then narrowed down to 132 empirical research papers based on selection criteria. Conventional content analysis was employed to address the study's aims, supplemented by keyword-in-context analysis.	The study found that ethical and legal issues are generally not explicitly addressed in empirical studies on algorithmic and data-driven technologies in mental health initiatives. While scholars may have considered ethical or legal matters at the ethics committee or institutional review board stage, such considerations are seldom detailed in published materials of applied research. Concerns identified include the lack of involvement of mental health service users, insufficient consideration of algorithmic accountability, and the risk of overmedicalization and techno-solutionism. Most papers were published in the field of computer science at the pilot or exploratory stages, indicating a potential gap in ethical and legal oversight as these technologies are translated into practice. This underscores the need for greater attention to ethical and legal implications in the development and implementation of

				algorithmic technologies in mental health care.
48	Review	The purpose of this review is to explore the integration of Artificial Intelligence (AI) into mental healthcare, examining current trends, ethical considerations, and future directions in the field.	The review encompassed recent studies, examples of AI applications, and ethical considerations shaping the field. Four databases (PubMed, IEEE Xplore, PsycINFO, and Google Scholar) were comprehensively searched. Inclusion criteria comprised papers published in peer-reviewed journals, conference proceedings, or reputable online databases, focusing specifically on the application of AI in mental healthcare, and review papers offering a comprehensive overview, analysis, or integration of existing literature in English.	Current trends underscore AI's transformative potential in mental healthcare, facilitating early detection of mental health disorders, personalized treatment plans, and AI-driven virtual therapists. However, these advancements pose ethical challenges related to privacy, bias mitigation, and the preservation of the human element in therapy. Future directions advocate for clear regulatory frameworks, transparent validation of AI models, and ongoing research and development efforts. While AI offers promising prospects for revolutionizing mental healthcare, responsible and ethical implementation is paramount. Addressing current challenges and shaping future directions thoughtfully can harness AI's potential to enhance the accessibility, efficacy, and ethicality of mental healthcare, benefiting individuals and communities alike.
49	Review	The purpose of this article is to explore the ethical aspects associated with the concept of intelligent health (iHealth) in mental healthcare, specifically focusing on three crucial elements: self-monitoring, ecological momentary assessment (EMA), and data mining.	The material for the analysis was obtained through a database search. Studies and reviews providing outcome data for each of the three elements (self-monitoring, EMA, and data mining) were analyzed. An ethical framing of the results was conducted to illustrate the opportunities and challenges of iHealth.	The synergy between self-monitoring, EMA, and data mining has the potential to facilitate the prevention of mental illness, predict its onset, personalize treatment, and involve patients in the treatment process. However, challenges emerge concerning the autonomy of users, privacy and data security, and the risk of potential bias. The article highlights both the promising opportunities and the ethical considerations that need to be addressed in the integration of AI and Big Data analytics in mental healthcare.
50	Research	The purpose of this article is to introduce and validate the content of an ethical checklist, known as the Canada Protocol, designed for the use of artificial intelligence (AI) in mental health and suicide prevention. The checklist aims to	The article outlines the design and validation process of the Canada Protocol, which comprises 38 items categorized into five main areas: Description of the Autonomous Intelligent System, Privacy and Transparency, Security, Health-	The article presents the Canada Protocol as the first validated ethical tool for AI in mental health and suicide prevention. It emphasizes the importance of future validation and assessments of the checklist's utility. The authors intend to

		bridge the gap between the fields of Mental Health, Ethics, and Computer Sciences by helping AI developers, researchers, and entrepreneurs identify and address ethical challenges associated with AI implementation in mental health.	Related Risks, and Biases. The checklist was developed to assist users in identifying potential ethical risks associated with AI in mental health and suicide prevention.	undertake further validation for each category of potential users and create tailored versions of the checklist for specific applications.
51	Review	The purpose of this review is to provide an overview of artificial intelligence (AI) and its current applications in mental healthcare. It aims to examine recent original research on AI specific to mental health, discussing how AI can complement clinical practice while addressing its limitations, identifying areas needing further research, and discussing ethical implications associated with AI technology.	The review analyzed 28 studies that utilized various data sources, including electronic health records (EHRs), mood rating scales, brain imaging data, monitoring systems (e.g., smartphones, video), and social media platforms. These studies aimed to predict, classify, or subgroup mental health illnesses such as depression, schizophrenia, or suicide ideation and attempts using machine learning (ML) algorithms.	The reviewed studies demonstrated high accuracies and showcased AI's potential in mental healthcare. However, they should be considered early proof-of-concept works, illustrating the potential of ML algorithms in addressing mental health questions and determining which types of algorithms yield the best performance. While AI techniques offer the promise of redefining mental illnesses more objectively, identifying them earlier, and personalizing treatments, caution is necessary to avoid over-interpreting preliminary results. Further efforts are needed to bridge the gap between AI research in mental health and its clinical application.

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